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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/673,812
Filing Date: September 29, 2003
Appellant(s): YAMASHITA ET AL.

Scott D. Paul
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08 December 2008 appealing from the Office action mailed 15 July 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

e-business Cookbook for z/OS Volume I. Technology Introduction Vilaghy et al.

July, 2002

6728769 Hoffman JUN 2000

20040107282 Chakraborty et al. DEC 2002

6598167 Devine et al. SEP 1998

6510523 Perlman et al. FEB 1999

20020138761 Kanemaki et al. SEP 2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction").

Consider claims 1, 8, and 9. Vilaghy et al. discloses a relay processing apparatus for relaying communications between a control program that generates control commands for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control

program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal ("Web component tier. This tier gets client requests (HTTP,HTTPS), analyzes the requests and decides to respond with a file (HTML, images) or calls a program (servlet) to do some part of the server-side processing requested by the client. Generally the servlet acts as the Controller (controls the whole application flow), then calls a JavaServer Page (JSP) to dynamically generate the HTML response (the presentation or View) to be sent back to the client.") page 23); means in the terminal request processor responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request ("The response created by the servlet is passed back to the HTTP server. The HTTP server passes back the response produced by the servlet to the client. If the client is a browser, the response will contain HTML formatted data.") page 124). However, the Web component tier fails to disclose an HTTP server receiving an HTTP request or a control request processor for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received. Vilaghy et al. further discloses a CICS WebServer Plugin wherein an HTTP Server receives the HTTP request ("The CICS WebServer Plugin replaces the functionality of the CWS Web attach transaction, described previously. The IBM HTTP Server for z/OS has to be configured with a service directive in order to function with the CICS WebServer Plugin. This configuration is described in the CICS Internet Guide,

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SC34-5713. Using this service directive, the HTTP Server receives the HTTP request, builds an EXCI request, and invokes the BLI using the CSMI mirror transaction in the target CICS region. The HTTP data stream is passed to the BLI in an EXCI COMMAREA.") page 154). and a control request processor for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received ("WebSphere manages and runs servlets and JSPs that contain the presentation logic to format the data coming from the back-end systems. WebSphere will provide a container to run Enterprise Java Beans (EJBs). This container provides transactional and other services. The servlets or JSPs invoke the EJBs. The EJBs contain the new, transactional business logic, and the servlets/JSPs should only contain presentation logic. The EJBs can connect to back-end systems using connectors.") page 67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a CICS WebServer Plugin wherein an HTTP Server receives the HTTP request and servlets and JSPs that contain the presentation logic to format the data coming from the back-end systems as taught by Vilaghy et al. with a Web component tier that gets client requests (HTTP,HTTPS), analyzes the requests and decides to respond with a file (HTML, images) or calls a program (servlet) to do some part of the server-side processing requested by the client and a response created by a servlet is passed back to an HTTP server and the HTTP server passes back the response produced by the servlet to the client, and if the client

is a browser, the response will contain HTML formatted data as taught by Vilaghy et al. for the purpose of a relay processing apparatus wherein an HTTP client can communicate with a back-end application.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Hoffman (US 6728769 B1).

Regarding claim 2, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus comprising means in the control request processor (figure 13-8, page 162) for transmitting the results from the first command to the control program, and means in the control program for performing a process corresponding to said results from the first command ("Aside from just formatting the output, servlets (read as control program) might need to talk to EJBs (read as request processor) to get data from databases or invoke transactions.") page 125). However, Vilaghy et al. fails to disclose means in the terminal for transmitting to the HTTP server program a second HTTP request that includes results from the first command. Hoffman discloses sending a second HTTP request that includes a flag indicating that an update has been successful ("Once the appropriate data has been received by the JSP 242, the JSP 242 directs that that WEB server 204 update the server-side data base 208 according to the selected input. In response, the WEB server 204 sends an HTTP response to the applet 228 by way of the JSP 242 directing the browser 214 to update only an update icon 244 indicating that the server side database 208 has been successfully updated. In this way, the user experiences a substantially real time

interaction since the update icon immediately reflects the effects of the user supplied input data on the data base 208 without the need to refresh the entire, or even a substantial portion of the WEB page.") column 5 lines 60-67 and column 6 lines 1-4 ("... generating a second http request by the http request generator, wherein the second http request includes a database update successful flag indicating that the database has been successfully updated; sending the second http request interaction applet; and updating the update icon only by the interaction applet indicating that the database has been successfully updated. ") claim 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate sending a second HTTP request indicating a successful update as taught by Hoffman with a means for sending a command and performing a process as taught by Vilaghy et al. for the purpose of application verification.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. (" e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Chakraborty et al. (US 20040107282 A1).

Consider claims 3 and 4, and as applied to claim 1 above. Vilaghy et al. discloses means responsive to a program for shifting a processor into a halted state while maintaining an execution state after a function; and means responsive to a notification from a processor for recovering from said halted state ((According to normal component-to-component communication, calls happen synchronously. This means that

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a component calls another component using the RMI-IIOP procedure, and during the call the client or caller waits till the server or the called party finishes.") page 138) and returning processing control and the first command to said HTTP server program ("5. The response created by the servlet is then passed back to the HTTP server.") page 124). However, Vilaghy et al. fails to disclose a means responsive to a following second function call from the HTTP server program. Chakraborty et al. discloses a method for preserving post data on a server system wherein once a user has authenticated with correct credentials (such as a login and password), the request goes back to the browser from where the user submitted the request, and an agent intercepts the request through a server application function for a second time ("FIG. 5B is a diagram illustrating an exemplary communication pathway between a browser, an agent and an identity server during a GET request and authentication in accordance with an embodiment of the present invention. The browser (C) communicates with an authentication server to authenticate the user in step 512. In one embodiment of the present invention, the authentication server is a Sun One identity server. Once a user has authenticated with the correct credentials (such as a login and password), the request goes back to the browser from where the user submitted the request. The agent intercepts the request through a server application function (SAF) for the second time.") paragraph 0051).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate a method for preserving post data on a server system wherein once a user has authenticated with correct credentials (such as

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a login and password), the request goes back to the browser from where the user submitted the request, and an agent intercepts the request through a server application function for a second time as taught by Chakraborty et al. with means responsive to a program for shifting a processor into a halted state while maintaining an execution state after a function; and means responsive to a notification from a processor for recovering from said halted state and returning processing control and the first command to said HTTP server program as taught by Vilaghy et al. for the purpose of secure authentication.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Devine et al. (US 6598167 B2).

Regarding claim 5, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus wherein an HTTP failure response message is sent to the terminal ("The login-config element specifies the type of authentication to be used and any associated data, such as login and error pages for form-based authentication.") page 84). However, Vilaghy et al. fails to disclose a terminal request processor comprising means responsive to a non-receipt of said reception notification from said control request processor within a predetermined period of time. Devine et al. discloses monitoring heartbeats for a predetermined period of time and determining a process to be closed if the heartbeats fail to respond ("For example, a keep alive message is sent every predefined period, e.g., 1 minute from a client application to the server. When the client application fails to heartbeat consecutively for a predetermined

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period of time, for example, one hour, the server treats this client application as having exited by closing the application and performing cleanup routines associated with the application.") column 4 lines 1-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate monitoring heartbeats for a predetermined period of time as taught by Devine et al. with error pages as taught by Vilaghy et al. for the purpose of event notification.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Perlman et al. (US 6510523 B1).

Regarding claim 6, and as applied to claim 1 above. Vilaghy et al. shows and discloses a relay processing apparatus according to claim 1. However, Vilaghy et al. fails to disclose a certification request message for requesting the preparation of an electronic certificate that authenticates a terminal in accordance with a command received from a control program. Perlman et al. discloses a system wherein certificates are requested from a device, generated, and granted. This reads on the claimed "requesting the preparation of an electronic certificate that authenticates said terminal ... in accordance with a command received from said control program ... means to transmit a signature addition command to said terminal containing an electronic signature." ("Credentials server 120 is a device (e.g., server) connected to network 150 that is capable of generating credentials (e.g., a private key and a public key certificate) trusted by one or more remote terminals. Credentials server 120 issues

credentials to a user to permit privileged operations. These credentials typically include public key certificates.") column 4 lines 38-44 ("Having established a secure communications channel, the user communicates with credentials server 120 using the untrusted terminal. In one implementation, the user can request credentials, such as a private key and a public key certificate, from credentials server 120, with which the user is registered. Both the private key and the public key may be represented as an alphabetic or numeric record (e.g., a 64-bit number). Although the private key is kept secret, the public key may be published. In another implementation, the private and public keys can be generated by the untrusted terminal. In this instance, the public key is sent to credentials server 120 so that it can generate a certificate for this key... In many public key systems, public keys are verified and access is granted based on a chain of certificates. With such systems, the credentials might include one or more certificates that complete such a chain. For instance, the credentials may include a chain of identity certificates to establish the name associated with a given public key. In addition, the credentials may include one or more delegation certificates delegating privileges associated with one key to another key. For instance, the user may sign a delegation certificate for the credentials server, which may sign a delegation certificate for the untrusted terminal. Either or both of these delegation certificates may include limited privileges. Alternatively, the credentials server might have a copy of the user's private key and use this to directly sign a delegation certificate for the untrusted terminal.") column 5 lines 55-67 and column 6 lines 1-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate generating an identity certificate as taught by Perlman et al. with a means for sending a command and performing a process as taught by Vilaghy et al. for the purpose of secure authentication.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vilaghy et al. ("e-business Cookbook for z/OS Volume I. Technology Introduction") in view of Perlman et al. (US 6510523 B1) and in further view of Kanemaki et al. (US 20020138761 A1).

Regarding claim 7, and as applied to claim 6 above. Vilaghy et al., as modified by Perlman et al., shows and discloses an apparatus of claim 6, comprising an information storage unit ("Storing your e-business files on high performance storage can alleviate I/O bottlenecks that exist on other platforms") Vilaghy et al., page 47 and Figure 3-2). However, Vilaghy et al., as modified by Perlman et al., fails to disclose an apparatus of claim 6, wherein the terminal request processor further comprises means for receiving a second function call containing a certification request message and an electronic signature from said HTTP server program as a response by the terminal to said signature addition command, and means for forwarding a notification to that effect to said control request processor; means in the control request processor responsive to the notification of receipt of the second function call for transmitting said certification request message to said control program; and means in said terminal request processor for transmitting an electronic certificate received from said control program. Kanemaki et al. discloses an authentication system wherein a second transaction (function call) is

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made upon receiving results of signature information after first transaction ((“... authentication apparatus holding information relating to a first transactor and authenticating a transaction between said first transactor and a second transactor performed via a network while communicating with another authentication apparatus holding information relating to said second transactor, comprising a transmitting and receiving means for transmitting a second request including information specifying said second transactor in response to a first request from said first transactor including information indicating said transaction content and information specifying said second transactor to said second authentication apparatus, receiving first signature information indicating an authentication result by said second authentication apparatus in response to said second request, transmitting a third request including information relating to said transaction content included in said first request and said first signature information to an apparatus used by said second transactor, and receiving a predetermined reply from an apparatus used by said second transactor in response to the related third request, a storage means for storing a log of said transaction when receiving said predetermined reply, and a signature producing means for producing second signature information to be transmitted to the apparatus used by said first transactor via said transmitting and receiving means when receiving said predetermined reply and indicating the authentication result of the legitimacy of said transaction.”) paragraph 0050).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a second certification request and an electronic signature as taught by with a means for sending a command and performing

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a process as taught as taught by Vilaghy, as modified by Perlman et al., for the purpose of secure authentication using digital certificates.

(10) Response to Argument

The Examiner summarizes the various points raised by the Appellants and addresses replies individually.

Applicant's Representative asserts that the client browser is described and illustrated throughout Vilaghy, e.g., in Fig. 10-3. Referring to Fig. 2-8 on pg. 22, which illustrates a servlet (allegedly corresponding to the claimed "control program") within a web container and to Fig. 10-3 on pg 133, which also illustrates a servlet (allegedly corresponding to the claimed "control request processor"), these separate references to "servlets" by the Examiner appear to be the same teaching. Thus, the Examiner is relying upon the same teaching within Vilaghy to teach the claimed "control program" and "control request processor."

The Examiner respectfully disagrees. The control request processor of the Application is read as an EJB container in the reference, not a servlet, as Applicant's Representative alleges. The control program of the Application is read as a web container in the reference, not a servlet, as the Applicant's Representative alleges. Vilaghy et al. discloses a relay processing apparatus for relaying communications between a web container (read as a control program) that generates control commands

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for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (page 23); and an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67).

Applicant's Representative asserts that as claimed, the control request processor receives, from the control program, a first command generated as a response to the function call. However, since the Examiner is relying upon the same teaching (i.e., servlet) within Vilaghy to teach the claimed "control program" and "control request processor." Appellants are unclear as to how the Examiner can characterize Vilaghy as teaching both of these limitations.

The Examiner respectfully disagrees. The control request processor of the Application is read as an EJB container in the reference, not a servlet, as Applicant's Representative alleges. The control program of the Application is read as a web container in the reference, not a servlet, as the Applicant's Representative alleges. Vilaghy et al. discloses a relay processing apparatus for relaying communications between a web container (read as a control program) that generates control commands

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for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (page 23); and an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67).

Applicant's Representative asserts that with regard to the claimed "notification (S350) that said first command has been received," the Examiner identified, as allegedly teachings these limitations, a teaching within Vilaghy of "a notification mechanism between JavaBeans to announce that something has happened." As also claimed, the control request processor (allegedly disclosed by the servlets) transmits the notification to the terminal request processor (allegedly disclosed by the web container). However, referring to Fig. 2-8, an Enterprise Bean (i.e., a JavaBean) is found within the EJB (Enterprise JavaBean) Container. Referring to Fig. 2-9 and 10-3, the EJB Container is a separate entity from either the web container (allegedly teaching the terminal request processor) or the servlets (allegedly teaching the control request processor). Thus, the Examiner has further mischaracterized the scope and content of Vilaghy.

The Examiner respectfully disagrees. The control request processor of the

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Application is read as an EJB container in the reference, not a servlet, as Applicant's Representative alleges. The terminal request processor of the Application is read as a WebServer Plugin in the reference, not a web container, as Applicant's Representative alleges. Vilaghy et al. discloses an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67), and means in the web server plugin (read as a terminal request processor) responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request (pages 124 and 154). As for Vilghy et al. Figures 2-8, 2-9, and 10-3 of Applicant's Representative arguments, these Figures were never cited.

Applicant's Representative asserts that the statement of the rejection found on pages 2-13 of the Third Office Action is substantially identical with the statement of the rejection on pages 2-17 of the Second Office Action. Referring to pages 3-5 of the Third Office Action, the Examiner only refers to Vilaghy in three instances within the statement of the rejection - (1) on line 5 of page 3; (2) on line 5 of page 4; and (3) on line 5 of page 5. However, in none of these instances does the Examiner ascertain the differences between the prior art (i.e., Vilaghy) and the claims at issue.

Vilaghy et al. discloses a relay processing apparatus for relaying communications

between a web container (read as a control program) that generates control commands for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (page 23); and an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67) , and means in the web server plugin (read as a terminal request processor) responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request (pages 124 and 154).

Applicant's Representative asserts that the Examiner has rejected the claims under 35 U.S.C. § 103 so Appellants presume that the Examiner believes that Vilaghy does not identically disclose all of the claimed limitations. However, the Examiner fails to identify those limitations that Vilaghy fails to teach. Thus, the Examiner has failed to properly ascertain the differences between Vilaghy and the claims at issue, which is one of the Graham findings of fact that must be made by the Examiner.

Vilaghy et al. discloses a relay processing apparatus for relaying communications

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between a web container (read as a control program) that generates control commands for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (page 23); and an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67) , and means in the web server plugin (read as a terminal request processor) responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request (pages 124 and 154).

Applicant's Representative asserts that for the first full paragraph on page 5 of the Third Office Action, Appellants are entirely unclear as to the relevance of these assertions. The Examiner does not refer to the actual language of the claims. Moreover, the Examiner does not precisely describe what would be the alleged modification to the teachings of Vilaghy.

Vilaghy et al. discloses a relay processing apparatus for relaying communications between a web container (read as a control program) that generates control commands

for a terminal and a process for an HTTP server program that returns to said terminal a command constituting an HTTP response to a HTTP request received from said terminal, comprising: a terminal request processor for initiating said control program upon the reception of a function call from said HTTP server program that initially received said HTTP request from the terminal (page 23); and an EJB container (read as a control request processor) for receiving from said control program a first command generated as a response to the function call, and for transmitting to said terminal request processor a notification that said first command has been received (page 67), and means in the web server plugin (read as a terminal request processor) responsive to the reception notification, for returning the first command to said HTTP server program, and means in the HTTP server program for returning said command to the terminal in said HTTP response issued for said HTTP request (pages 124 and 154). Though found in different embodiments of the Vilaghy et al. reference, they are all from the same invention and would have been obvious to combine for the purpose of passing web pages from a backend server to a terminal via a secure gateway.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's Answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Mark D. Fearer

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/MDF/

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